# 9.0 BIBLIOGRAPHY

40 CFR 1506, "Other Requirements of NEPA," *Code of Federal Regulations*, as amended.

DOE-RL, 1998, *Screening Assessment and Requirements for a Comprehensive Assessment: Columbia River Comprehensive Impact Assessment*, DOE/RL-96-16, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE-RL, 1998a, *Tri-Party Agreement Handbook Management Procedures*, RL-TPA-90-0001, Guideline Number TPA-MP-14, "Maintenance of the Waste Information Data System (WIDS)," U.S. Department of Energy, Richland Operations Office, Richland, Washington.

EPA, 1993, *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*, EPA 540-R-93-057, U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, D.C.

OMB, 1992, *Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs*, Circular No. A-94, Office of Management and Budget (as amended), Washington, D.C.

PNNL, 2003, *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Rev. 15, Pacific Northwest National Laboratory, Richland, Washington.

# APPENDIX A

# FACILITY DESCRIPTIONS

# APPENDIX A
# FACILITY DESCRIPTIONS

## A.1 INTRODUCTION

This appendix provides a description of facilities within the scope of this engineering evaluation/cost analysis (EE/CA). Facilities within the scope of this evaluation are listed in Table A-1. Since the 1980s, a portion of the 100-K Area infrastructure has been kept operational to support the storage and remediation of spent fuel in the 105-KE and 105-KW Basins (K Basins). While most of the fuel has been removed, some of these buildings and systems remain active to support the final spent fuel and sludge removal and deactivation of the basins. As these activities are completed, the remaining facilities and systems will be released for disposition in accordance with the action memorandum associated with this EE/CA. Those facilities that support other projects, K Basins Closure as described above and the Groundwater Project, are noted in Table A-1.

Tables A-2 through A-54 in this appendix summarize a number of characteristics, including facility name, number, location, size, construction, operational and process history, and waste characterization. The information within the tables was compiled from a variety of sources that include technical baseline reports, completion reports, and other building documents. The tables provide information on the 105-KW and 105-KE Reactors, followed by 100-K Area Facilities.

**Table A-1. 100-K Area Buildings Included in the Scope of the EE/CA. (6 Pages)**

| Building Number | Building Name | Covered in Other Documents/Notes | Covered by this EE/CA | Supports Other Projects as of March 2006 |
|---|---|---|---|---|
| 105-KE | Reactor Building | | X | X |
| 105-KE | Water Tunnels | | X | X |
| 105-KE FSB | Fuel Storage Basin | 100-KR-2 OU ROD with amendments | | |
| 105-KW | Reactor Building | | X | X |
| 105-KW | Water Tunnels | | X | X |
| 105-KW FSB | Fuel Storage Basin | 100-KR-2 OU ROD with amendments | | |
| 107-K | Retention Basin | Structures removed; only revegetation following waste site work is needed | | |
| 110-KE | Gas Storage Facility | DOE/RL-2004-43 | | |
| 110-KW | Gas Storage Facility | DOE/RL-2004-43 | | |
| 115-KE | Gas Recirculation Facility | DOE/RL-2004-43 | | |

**Table A-1. 100-K Area Buildings Included in the Scope of the EE/CA. (6 Pages)**

| Building Number | Building Name | Covered in Other Documents/Notes | Covered by this EE/CA | Supports Other Projects as of March 2006 |
|---|---|---|---|---|
| 115-KW | Gas Recirculation Facility | DOE/RL-2004-43 | | |
| 116-KE | Reactor Exhaust Stack (includes 116-KW) | DOE/RL-2004-43 | | |
| 117-KE | Exhaust Air Filter Building | DOE/RL-2004-43 | | |
| 117-KW | Exhaust Air Filter Building | DOE/RL-2004-43 | | |
| 118-KE2 | Horizontal Control Rod Storage Cave | DOE/RL-2004-43 | | |
| 118-KW2 | Horizontal Control Rod Storage Cave | DOE/RL-2004-43 | | |
| 119-KE | Exhaust Air Sample Building | | X | |
| 119-KW | Exhaust Air Sample Building | DOE/RL-2004-43 | | |
| 142-K | CVDF | | X | X |
| 142-KA | CVDF Generator Building | | X | X |
| 1506-K1 | Fiber Optics Computer Hut | | X | X |
| 150-KE | Heat Recovery Station | Demolished | | |
| 150-KW | Heat Recovery Station | Demolished | | |
| 151-K | Switching Station | | X | |
| 151-KE | Substation 230-KV | | X | X |
| 151-KW | Substation 230-KV | | X | X |
| 1604-K | Process Building KR4 | Expected to be active through 2012 | X | X |
| 1605-K | Guard Towers and Fences, to include poles, lines and above-grade utility piping | | X | X |
| 1606-K | Transfer Building KR-3 | Expected to be active through 2012 | X | X |
| 1607-K | Transfer Building 1 | Expected to be active through 2012 | X | X |
| 1614-K | Environmental Monitoring Station | DOE/RL-2004-43 | | |
| 165-KE | Power Control Building | | X | X |
| 165-KW | Power Control Building | | X | |
| 166A-KE | Oil Storage Facility Valvehouse | | X | |
| 166A-KW | Oil Storage Facility Valvehouse | | X | |
| 166-KE | Oil Storage Vault | DOE/RL-2004-43 | | |
| 166-KW | Oil Storage Vault | DOE/RL-2004-43 | | |
| 167-K/167-KE | Crosstie Tunnel Building | | X | X |

**Table A-1. 100-K Area Buildings Included in the Scope of the EE/CA. (6 Pages)**

| Building Number | Building Name | Covered in Other Documents/Notes | Covered by this EE/CA | Supports Other Projects as of March 2006 |
|---|---|---|---|---|
| 1701-K | Abandoned Guardhouse (at Southwest corner of 1720-K) | DOE/RL-2004-43 | | |
| 1705-KE | Effluent Water Treatment Pilot Plant | | X | |
| 1706-KE | Water Studies Semi-Works Building | | X | X |
| 1706-KEL | Development Laboratory | | X | X |
| 1706-KER | Water Studies Recirculation Building | | X | X |
| 1713-KE | Shop Building | | X | X |
| 1713-KER | Warehouse | | X | X |
| 1713-KW | Warehouse | | X | X |
| 1714-KE | Oil and Paint Storage Shed | | X | X |
| 1714-KW | Warehouse | | X | X |
| 1717-AKE | Fan House | | X | X |
| 1717-K | Maintenance/Transportation Shop | | X | X |
| 1720-K | Administrative Office Building | DOE/RL-2004-43 | | |
| 1724-K | Maintenance Shop | | X | X |
| 1724-KA | Equipment Shed | | X | X |
| 1724-KB | Gas Bottle Storage Building | | X | X |
| 181-KE | River Pump House | | X | X |
| 181-KW | River Pump House | | X | |
| 182-K | Emergency Water Reservoir Pump House | DOE/RL-2004-43 | | |
| 183-KW | Chlorine Vault for KW Water Plant | DOE/RL-2004-43 | | |
| 183.1-KE | Headhouse | | X | X |
| 183.1-KW | Headhouse | DOE/RL-2004-43 | | |
| 183.2-KE | Basins/Sedimentation | | X | X |
| 183.2-KW | Basins/Sedimentation | DOE/RL-2004-43 | | |
| 183.3-KE | Basin/Filters | | X | X |
| 183.3-KW | Basin/Filters | DOE/RL-2004-43 | | |
| 183.4-KE | Reservoir and Clearwells | | X | X |
| 183.4-KW | Reservoir and Clearwells | DOE/RL-2004-43 | | |
| 183.5-KE | Lime Feeder Building | | X | X |
| 183.5-KW | Lime Feeder Building | DOE/RL-2004-43 | | |
| 183.6-KE | Lime Feeder Building | | X | X |

**Table A-1. 100-K Area Buildings Included in the Scope of the EE/CA. (6 Pages)**

| Building Number | Building Name | Covered in Other Documents/Notes | Covered by this EE/CA | Supports Other Projects as of March 2006 |
|---|---|---|---|---|
| 183.6-KW | Lime Feeder Building | DOE/RL-2004-43 | | |
| 183.7-KE | Pipe Tunnel | | X | X |
| 183.7-KW | Pipe Tunnel | DOE/RL-2004-43 | | |
| 183-K | Pipe Tunnels | | X | X |
| 183-KE | Chlorine Vault | | X | X |
| 184-K | Water Treatment Building | Does not exist | | |
| 185-K | Potable Water Treatment Plant | | X | X |
| 1908-K | Effluent Outfall | Remaining Sites ROD, Table A-1 | | |
| 1908-KE | Effluent Water Monitoring Station | | X | |
| 1909-K | Effluent Valve Pit | DOE/RL-2004-43 | | |
| 190-KE | Main Pump House | | X | |
| 190-KW | Process Water Pump House | DOE/RL-2004-43 | | |
| 296-K105 | Air Sparging Vent 105-KW Basin | | X | X |
| 296-K142 | CVDF Main Stack | | X | X |
| CC1K0035 | Cargo Container N of 105-KW | Note 1 | X | X |
| CC1K0036 | Cargo Container N of 105-KE | Note 1 | X | X |
| CC1K0037 | Cargo Container N of 1714-KE | Note 1 | X | X |
| CC1K0176 | Cargo Container E of 115-KE | Note 1 | X | X |
| CC1K0177 | Cargo Container E of 115-KE | Note 1 | X | X |
| CC1K0178 | Cargo Container E of 115-KE | Note 1 | X | X |
| CC1K0179 | Cargo Container E of 115-KE | Note 1 | X | X |
| CC1K0180 | Cargo Container E of 115-KE | Note 1 | X | X |
| CC1K0181 | Cargo Container E of 115-KE | Note 1 | X | X |
| CC1K0182 | Cargo Container E of 115-KE | Note 1 | X | X |
| CC1K0236 | Cargo Container NE of 142-K | Note 1 | X | X |
| HS0028 | Storage Container at KA-CW-1 N of 166-KE | Note 2 | X | X |
| HS0080 | Storage Container | Note 2 | X | X |
| HS0081 | Storage Container | Note 2 | X | X |
| KA-CW-01 | CERCLA Storage Unit | Note 2 | X | X |
| MO-048 | Mobile Office - N of 165-KE (1733-KE) | Note 3 | X | X |

**Table A-1. 100-K Area Buildings Included in the Scope of the EE/CA. (6 Pages)**

| Building Number | Building Name | Covered in Other Documents/Notes | Covered by this EE/CA | Supports Other Projects as of March 2006 |
|---|---|---|---|---|
| MO-054 | Mobile Office - S of MO500 (1734-K) | Note 3 | X | X |
| MO-060 | Training Mobile Office - E of MO969 | Note 3 | X | X |
| MO-101 | Mobile Office at 1717-K (1711-K) | Note 3 | X | X |
| MO-102 | Mobile Office at 1717-K (1709-K) | Note 3 | X | X |
| MO-214 | Mobile Office - Patrol Badgehouse (1701-K) | DOE/RL-2004-43 | | |
| MO-236 | Mobile Office - S of 115-KW (1728-KW) | Note 3 | X | X |
| MO-237 | Mobile Office - S of 115-KW (1729-KW) | Note 3 | X | X |
| MO-293 | Mobile Office - E of 183-KE (1725-K) | Note 3 | X | X |
| MO-323 | CVDF Change Trailer | Note 3 | X | X |
| MO-382 | MO abandoned 1720-K | Note 3 | X | X |
| MO-401 | Mobile Office - At 1724-K (1719-K) | Note 3 | X | X |
| MO-402 | Mobile Office - (1718-K) | Note 3 | X | X |
| MO-420 | Mobile Office- Patrol Checkpoint | Moved to 200W/PFP | | |
| MO-434 | Mobile Office | at 200E(CSB) | | |
| MO-442 | Mobile Office - at 183, 1-KE (1726-K) | Note 3 | X | X |
| MO-474 | Mobile Office | Moved to 100 B Area | | |
| MO-495 | Mobile Office - SW of 142 (CVDF) | Note 3 | X | X |
| MO-500 | Mobile Office - S of 1724-K (1737-K) | Note 3 | X | X |
| MO-506 | Mobile Office - S of CVDF | Note 3 | X | X |
| MO-507 | Mobile Office -S of 142-K CVDF | Note 3 | X | X |
| MO-728 | Mobile Office - Operations Room | at 200E(CSB) | | |
| MO-731 | Mobile Office | at 200E(CSB) | | |
| MO-907 | Mobile Office - at CVDF | Note 3 | X | X |
| MO-917 | Mobile Office -at CVDF | Note 3 | X | X |
| MO-928 | Mobile Office - at 1717-K (1723-K) | Note 3 | X | X |
| MO-955 | Mobile Office - S of 115-KW (1732-KW) | Note 3 | X | X |

**Table A-1. 100-K Area Buildings Included in the Scope of the EE/CA. (6 Pages)**

| Building Number | Building Name | Covered in Other Documents/Notes | Covered by this EE/CA | Supports Other Projects as of March 2006 |
|---|---|---|---|---|
| MO-969 | Mobile Office - N of 165-KE (1730E) | Note 3 | X | X |

NOTES:
1. Current Cargo Container List, but others may be included if located in the 100-K Area.
2. Current Storage Unit list, but others may be included if located in the 100-K Area.
3. Current Mobile Office list, but others may be included if located in the 100-K Area.

CVDF = Cold Vacuum Drying Facility
DOE = U.S. Department of Energy
EE/CA = Engineering Evaluation/Cost Analysis
OU = Operable Unit
RL = Richland Operations Office
ROD = Record of Decision

**Table A-2**

| | |
|---|---|
| Name | Reactor Building |
| Number | 105-KE: WIDS # - 100-K-42 |
| Location | Central KE Area |
| Operational Years | 1955 to 1971 (K Basin Closure Support) |
| Building Description | A concrete and structural steel multi-story structure having reinforced concrete or transite siding, precast reinforced concrete or insulating concrete roof with built-up asphalt and gravel surfacing.<br><br>Dimensions: 5,457 $m^2$ (58,739 $ft^2$) total area |
| Status/History | The building contains the reactor, control room, offices, conference room, lunchroom, change room, spent fuel storage areas, ventilation systems, and certain test facilities.<br><br>Appurtenances: 91.5 m (300 ft) reinforced concrete exhaust stack, railroad spur entering the building, 150-KE heat exchanger for utilizing reactor effluent water heat for space heating. |
| Characterization | Radiological contamination; unquantified hazardous construction materials |

**Table A-3**

| | |
|---|---|
| Name | Water Tunnels |
| Number | 105-KE |
| Location | South end of 105-KE |
| Operational Years | 1955 to 1971 (K Basin Closure Support) |
| Building Description | Concrete raceway carrying pipes from the 190-KE Main Pump House Building to the 105-KE Reactor Building |
| Status/History | |
| Characterization | Unquantified water treatment chemicals |

**Table A-4**

| | |
|---|---|
| Name | Reactor Building |
| Number | 105-KW; WIDS # - 100-K-3 |
| Location | Central KW Area |
| Operational Years | 1955-1970 (K Basin Closure Support) |
| Building Description | Almost identical to 105-KE. Differs somewhat in test facilities.<br>A concrete and structural steel multi-story structure having reinforced concrete or transite siding, precast reinforced concrete or insulating concrete roof with built-up asphalt and gravel surfacing.<br><br>Dimensions: 5,457 $m^2$ (58,739 $ft^2$ ) total area |
| Status/History | The building contains the reactor, control room, offices, conference room, lunchroom, change room, spent fuel storage areas, ventilation systems, and certain test facilities.<br><br>Appurtenances: 91.5 m (300 ft) reinforced concrete exhaust stack, railroad spur entering the building, 150-KW heat exchanger for utilizing reactor effluent water heat for space heating. |
| Characterization | Radiological contamination; unquantified hazardous construction materials |

**Table A-5**

| | |
|---|---|
| Name | Water Tunnels |
| Number | 105-KW |
| Location | South end of 105-KW |
| Operational Years | 1955-1970 (K Basin Closure Support) |
| Building Description | Concrete raceway carrying pipes from the 190 Main Pump House Building to the 105-KW Reactor Building. |
| Status/History | |
| Characterization | Unquantified water treatment chemicals |

**Table A-6**

| | |
|---|---|
| Name | Exhaust Air Sample Building |
| Number | 119-KE |
| Location | Northeast end of 105-KE Reactor; southwest of 117-KE |
| Operational Years | 1961 to 1971 |
| Building Description | A small, pre-engineered, ribbed-metal building on a concrete slab foundation. The building is 84.7 $m^2$ (912 $ft^2$) (GE 1964). |
| Status/History | The 119-KE Exhaust Air Sample Building is located over the ventilation ducts that lead to the 117-KE Building. The building was designed to house most of the instrumentation for the exhaust air systems and is located over the vent ducts that lead from the filter buildings. (PNL 1991) |
| Characterization | Radiological contamination; unquantified hazardous construction materials |

**Table A-7**

| | |
|---|---|
| Name | CVDF |
| Number | 142-K |
| Location | West of 190-KW |
| Operational Years | 2001 to present |
| Building Description | A steel frame pre-cast concrete building within the 100-K fenced area. The building has two pre-engineered metal building wings/attachments, and is designed to house four process bays for dewatering and drying fuel in multi-canister overpacks shipped from the K Basins. |
| Status/History | Equipment that is installed and tested includes process equipment skids, hydrogen mitigation skids, waste water conditioning skid, distributive control system, personnel contamination monitors, helium storage tank, nitrogen storage tank, communications fiber and phone, high efficiency filters, process and recirculation tanks, and stack monitoring system. This building is expected to be refurbished to treat and or package (for shipment to other treatment facility) basin sludge for shipment from K Basins. |
| Characterization | Radiological contamination |

**Table A-8**

| | |
|---|---|
| Name | CVDF Generator Building |
| Number | 142-KA |
| Location | West of 190-KW |
| Operational Years | 2001 to present |
| Building Description | A steel building on a concrete slab and houses the CVDF generator. |
| Status/History | Currently in use. |
| Characterization | Radiological contamination |

**Table A-9**

| | |
|---|---|
| Name | Fiber Optics Computer Hut |
| Number | 1506-K1 |
| Location | |
| Operational Years | 1995 to present |
| Building Description | Connex box which contains the LMSI HLAN terminal for the area computing needs. |
| Status/History | Currently in use. |
| Characterization | Potential radiological contamination |

**Table A-10**

| | |
|---|---|
| Name | Switching Station |
| Number | 151-K |
| Location | |
| Operational Years | 1955 to present |
| Building Description | |
| Status/History | Electrical power for the 100 Areas came from the Grand Coulee Dam to Bonneville Dam grid via the Midway Substation and the 151 Primary Substations. The offsite electrical power enters the site at the 151 KW substation at a voltage of 230 kV. The power is transformed to a voltage of 13.8 kV in the substation. The 13.8 kV is supplied to the 105-KE Basin through the cross-tie tunnel, and then transformed further at both the 105-KW and 105-KE Basins to K Basins utilization voltages of 4160 and 480 V for use in the 100-K Buildings. DOE-RL has operational requirements for this building past 2012. |
| Characterization | Unquantified hazardous construction material, PCB leaks and spills |

**Table A-11**

| | |
|---|---|
| Name | Substation 230-KV |
| Number | 151-KW |
| Location | |
| Operational Years | 1955 to present |
| Building Description | |
| Status/History | The offsite electrical power enters the site at the 151 KW substation at a Bonneville Power Administration (BPA) distribution voltage of 230 kV. The power is transformed to a voltage of 13.8 kV in the substation. The 13.9 kV is supplied to the 105-KE Basin through the cross-tie tunnel, and then transformed further at both the 105-KW and 105-KE Basins to K Basins utilization voltages of 4160 and 480 V for use in the 100-K Buildings. DOE-RL has operational requirements for this facility past 2012. |
| Characterization | Unquantified hazardous construction material, PCB leaks and spills |

**Table A-12**

| | |
|---|---|
| Name | Substation 230-KV |
| Number | 151-KE |
| Location | |
| Operational Years | 1955 to present |
| Building Description | |
| Status/History | Electrical power for the 100 Areas came from the Grand Coulee Dam to Bonneville Dam grid via the Midway Substation and the 151 Primary Substations. The offsite electrical power enters the site at the 151 KW substation at a voltage of 230 kV. The power is transformed to a voltage of 13.8 kV in the substation. The 13.8 kV is supplied to the 105-KE Basin through the cross-tie tunnel, and then transformed further at both the 105-KW and 105-KE Basins to K Basins utilization voltages of 4160 and 480 V for use in the 100-K Buildings. DOE-RL has operational requirements for this facility past 2012. |
| Characterization | Unquantified hazardous construction material, PCB leaks and spills |

**Table A-13**

| | |
|---|---|
| Name | Process Buildings KR4 |
| Number | 1604-K |
| Location | |
| Operational Years | 1993 to present |
| Building Description | A metal frame building with a cement floor that contains pumps and the resin column used to filter water from the groundwater pump and treat operations. The facility also includes the array of collection and distribution pipe and hose systems that support the groundwater treatment. It does not include the extraction and injection wells. |
| Status/History | DOE-RL has operational requirements for this building past 2012. |
| Characterization | Radiological and chemical contamination |

**Table A-14**

| | |
|---|---|
| Name | Guard Towers and Fences, including poles, lines and above-grade utility piping |
| Number | 1605-K |
| Location | |
| Operational Years | 1955 to present |
| Building Description | The function of the fences and guard towers was to serve as part of the security system, to observe and guard the region and to prevent any unauthorized entries, and to watch for the outbreak of fires. |
| Status/History | Currently in use |
| Proximity to Other Buildings | |
| Characterization | Unquantified hazardous construction materials, radiological contamination |

**Table A-15**

| | |
|---|---|
| Name | Transfer Buildings KR-3 |
| Number | 1606-K |
| Location | |
| Operational Years | 1993 to present |
| Building Description | A metal frame building with a cement floor that houses pumps for the groundwater pump and treat operations. The facility also includes the array of collection and distribution pipe and hose systems that support the groundwater treatment. It does not include the extraction and injection wells. |
| Status/History | DOE-RL has operational requirements for this building past 2012. |
| Characterization | Radiological and chemical contamination |

**Table A-16**

| | |
|---|---|
| Name | Transfer Buildings |
| Number | 1607-K |
| Location | |
| Operational Years | 1993 to present |
| Building Description | A metal frame building with a cement floor that houses pumps for the groundwater pump and treat operations. The facility also includes the array of collection and distribution pipe and hose systems that support the groundwater treatment. It does not include the extraction and injection wells. |
| Status/History | DOE-RL has operational requirements for this building past 2012. |
| Characterization | Radiological and chemical contamination |

**Table A-17**

| | |
|---|---|
| Name | Power Control Building |
| Number | 165-KE; WIDS# - 100-K-67 |
| Location | Northwest of 190-KE and east of 166-KE |
| Operational Years | 1955-present |
| Building Description | A single-story concrete structure with reinforced concrete floors, walls, and poured roof with built-up asphalt and gravel surfacing.<br><br>The building consists of three parts: The pump room and valve pit with steel grating floor providing work area; the electrical area consisting of two concrete floors; the oil fired steam plant; and control room.<br><br>Dimensions: approximately 4,910 $m^2$ (52,851 $ft^2$) of space. |
| Status/History | The purpose of the building was to provide housing for power house, control room, valve pit, and electrical switchgear for water supply system.<br><br>Appurtenances: Adjacent 230 kV switchyard. Subsurface oil storage bunkers and oil pump facilities, 166-KE. |
| Characterization | Chemical contamination and PCBs leaks and spills |

**Table A-18**

| | |
|---|---|
| Name | Power Control Building |
| Number | 165-KW; WIDS # - 100-K-66 |
| Location | Northwest of 190-KW and east of 166-KW. |
| Operational Years | 1955-1971 |
| Building Description | Identical to 165-KE Building. A single-story concrete structure with reinforced concrete floors, walls, and poured roof with built-up asphalt and gravel surfacing.<br><br>The building consists of three parts: The pump room and valve pit with steel grating floor providing work area; the electrical area consisting of two concrete floors; the oil fired steam plant; and control room.<br><br>Dimensions: approximately 4,910 $m^2$ (52,851 $ft^2$) of area. |
| Status/History | The purpose of the building was to provide housing for power house, control room, valve pit, and electrical switchgear for water supply system.<br><br>Appurtenances: Adjacent 230 kV switchyard. Subsurface oil storage bunkers and oil pump facilities, 166-KE.<br><br>The air compressors and receivers have been removed. Most of the asbestos lagging has been removed. Cleanup of the remaining asbestos and of asbestos already removed remains to be completed. |
| Characterization | Chemical contamination and PCBs leaks and spills |

**Table A-19**

| | |
|---|---|
| Name | Oil Storage Facility Valvehouse |
| Number | 166A-KE |
| Location | West of 165-KE |
| Operational Years | 1955-1971 |
| Building Description | Instrument shed for the 166-K oil bunker and equipment. The valvehouse house controlled steam heating, pumping, and monitored levels. . |
| Status/History | |
| Characterization | Unquantified hazardous construction materials; chemical contamination |

**Table A-20**

| | |
|---|---|
| Name | Oil Storage Facility Valvehouse |
| Number | 166A-KW |
| Location | West of 165-KW |
| Operational Years | 1955-1970 |
| Building Description | Small instrument and valve housed on top of the bunkers that controlled steam heating, pumping and monitored levels. |
| Status/History | |
| Characterization | Unquantified hazardous construction materials; chemical contamination |

**Table A-21**

| | |
|---|---|
| Name | Crosstie Tunnel Building |
| Number | 167-K/167-KE |
| Location | |
| Operational Years | 1955-1971 (K Basin Closure Support) |
| Building Description | A concrete structure that is the midway ventilation and entry shaft for the 100-KE/KW crosstie tunnel.2 |
| Status/History | |
| Characterization | Water treatment chemicals |

**Table A-22**

| | |
|---|---|
| Name | Effluent Water Treatment Pilot Plant |
| Number | 1705-KE |
| Location | Northwest of 165-KE. |
| Operational Years | 1955-1971 |
| Building Description | A concrete block structure that is attached to 165-KE. It has approximately 51 $m^2$ (552 $ft^2$) of space and is in a deactivated status. |
| Status/History | |
| Characterization | Radiological and chemical contamination, biohazards |

**Table A-23**

| | |
|---|---|
| Name | Water Studies Semi-Works Building |
| Number | 1706-KE |
| Location | Located at the southwest corner of the 105-KE Reactor. |
| Operational Years | 1955-1971 (K Basin Closure Support) |
| Building Description | The 1706-KE building is a single-story concrete and steel frame structure with corrugated transite siding, concrete floors, and flat roof with built-up asphalt and gravel surfacing over cement board and 6.3mm (¼ in) steel plate. It has a full basement with half sub-basement. The ground floor walls are concrete block and the upper levels are of transite siding.<br><br>Dimensions: approximate area of 1,042 $m^2$ (11,216 $ft^2$). |
| Status/History | Purpose is to provide out-of-reactor facilities in support of in-reactor test loops and single-pass tubes. It provides water treatment facilities and instrumented supply systems for eight KE-Reactor tubes used for studies of corrosion and effects of water treatment parameters on effluent activity. One small room contains a TSD unit that is still active. |
| Characterization | Radiological and chemical contamination; unquantified hazardous construction materials |

**Table A-24**

| | |
|---|---|
| Name | Development Laboratory |
| Number | 1706-KEL |
| Location | Adjoins the 1706-KER Water Studies Recirculation building. |
| Operational Years | 1955-1971 (K Basin Closure Support) |
| Building Description | A 251 $m^2$ (2,702 $ft^2$) building adjoining the 1706-KER building. |
| Status/History | About half of this building is used for instrument development pertinent to water treatment and corrosion control. The remaining part is outfitted for handling corrosion coupons that may be mildly contaminated. |
| Characterization | Radiological and chemical contamination; unquantified hazardous construction materials |